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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,399	03/12/2004	Hanbyn Cha	1721.01	7338
29338	7590	03/20/2007	EXAMINER	
PARK LAW FIRM 3255 WILSHIRE BLVD SUITE 1110 LOS ANGELES, CA 90010			ALLISON, ANDRAE S	
			ART UNIT	PAPER NUMBER
			2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/799,399	Applicant(s) CHA, HANBYN	
	Examiner Andrae S. Allison	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/12/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to because of the following informalities:
 - a. The phrase "A system of measuring" in claim 9, line 1 should read data "A system for measuring" because the word "of" should be replaced with the word "for".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 and 4-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashima et al (US Patent No.: 6,115,505).

As to independent claim 1, Hashima discloses a method of measuring an object in a two-dimensional digital image (area detection method; column 1, lines 6-9), wherein the object is moved, and a first image (reference image having a predetermine pattern, column 1, lines 7) of the object, which is captured before the object is moved, and a second image (area having the same pattern; see column 1, line 7-8) of the object, which is captured after the object is moved (note that the area having the same pattern, referred to as "search image" is taken after is object is moved, see column 6, lines 45-

55) are used in measuring, the method comprising: a) detecting two-dimensional displacement of the image by comparing the position of one reference point (e.g. mark; see column 7, line 32) of the object in the first image and the position of the same reference point of the object in the second image (see column 7, lines 50-62, where a correlator is used to find similarities between the reference pattern and the "search image"); and b) calculating geometrical data of the object (see column 12, lines 12-24, where the position of the reference is obtained through translation).

As to independent claim 9, this claim differs from claim 1 only in that claim 9 is a system whereas, claim 1 is method and the limitations a detection module and a calculation module calculating geometrical data of the object are additively recited. Hashima clearly teaches a system (100, see Fig) comprising: a detection module (160, area detection unit, see Fig 1) and a calculation module (140, correlator, see Fig 1) calculating geometrical data of the object.

As to claim 2, Hashima teaches the method, wherein the step of detecting two-dimensional displacement comprises moving the second image so that the second image overlaps the first image (see column 14, lines 39-49, where in order to avoid erroneous detection portions of the reference and "search" images are overlapped).

As to claim 4, Hashima teaches the method, wherein the step of detecting two-dimensional displacement is repeated one or more times (note that the process for

obtaining the position is repeated; see column 12, lines 18-19).

As to claim 5, Hashima teaches the method, wherein in the step of detecting two-dimensional displacement, the coordinates of one or more points of the object in the first image are memorized, wherein when the object is moved, the displacement of the object is automatically calculated (note that the position of the reference image is determined and stored, see column 7, lines 60-65)

As to claim 6, Hashima teaches the method, wherein in the step of detecting two-dimensional displacement, the coordinates of one or more points of the object in the first image are memorized, wherein when the object is moved, the displacement of the object is automatically calculated within a partial range of the first image determined by a user (see Fig 4).

As to claim 7, Hashima teaches the method, wherein the geometrical data is one-dimensional, wherein the two-dimensional coordinates of a measuring point of the first image relative to the reference point, and the two-dimensional coordinates of a measuring point of the second image relative to the reference point are used in the step of calculating the geometrical data of the object (see column 9, lines 7-20)

As to claim 8, Hashima teaches the method wherein the geometrical data is two-dimensional, wherein the two-dimensional coordinates of one or more measuring points

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of the first image relative to the reference point, and the two-dimensional coordinates of one or more measuring points of the second image relative to the reference point are used in the step of calculating the geometrical data of the object (see column 10, lines 17-54).

Claim 10 differ from claim 2 only in that claim 2 is a method claim whereas claim 10 is a system claim. Thus, claim 10 is analyzed as previously discussed with respect to claim 2 above.

Claims 12-16 differ from claims 4-8 only in that claims 4-8 are method claims whereas, claims 12-16 are system claims. Thus, claims 12-16 are analyzed as previously discussed with respect to claims 4-8 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashima et al (US Patent No.: 6,115,505) in view of Chini et al (US Patent No.: 5,608,818).

As to claim 3, Hashima discloses the method wherein in the step of moving the second image, overlapping is determined by minimizing sum of the luminosity value of a specific point or area of the first image and the luminosity value of the same point or area of the second image (see column 3, lines 14-40), wherein the luminosity of a part of the second image, however does not expressly mention the point or area, is set to be the negative value of the luminosity of the originally captured second image.

Chini discloses an automatic pickup system (column 1, lines 6-7) that includes wherein a point or area, is set to be the negative value of the luminosity of the originally captured second image (see column 3, lines 58-61). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have modified the teaching of Hashima with the teaching of Chini to unitize an inverted image along with a reference image (see Fig 3) for detecting an object in an image by determining the coordinates of predetermined points of the detected object (column 1, lines 58-61).

Claim 11 differ from claim 3 only in that claim 3 is a method claim whereas claim 11 is a system claim. Thus, claim 11 is analyzed as previously discussed with respect to claim 3 above.

Conclusion

The prior art made part of the record and not relied upon is considered pertinent to applicant's disclosure.

Vaidyanathan et al (US Patent No.: 5,375,177) is cited to teach a method of identifying and characterizing a valid object by color.

Surka (US Patent No.: 5,748,804) is cited to teach a method and apparatus for processing images with symbols and dense edges.

Miyagi et al (US Patent No.: 7,184,611) is cited to teach a system, method and data recording apparatus for finding an object within an image.

Beuker et al (US Patent No.: 7,123,799) is cited to teach a method and apparatus for merging images into a composite image.

Gagon et al (US Patent No.: 7,027,628) is cited to teach an automated microscopic image acquisition, compositing and display.

Shilkata (US Patent No.: 7,058,221) is cited to teach a method of recognizing object based on pattern matching.

Jaggi et al (US Patent No.: 4,845,552) is cited to teach a quantitative light microscope using a solid state detector in the primary image plane

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrae S. Allison whose telephone number is (571)

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270-1052. The examiner can normally be reached on Monday-Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrae Allison

March 15, 2007

A.A.



JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER